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handsets, headsets, microphones, selector switches, and signaling devices;

- (b) Is approved in accordance with §21.305 of this chapter;
- (c) Is accessible for immediate use from each of two flight crewmember stations in the pilot compartment;
- (d) For each required floor-level passenger emergency exit which has an adjacent flight attendant seat, has a microphone which is readily accessible to the seated flight attendant, except that one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated flight attendants;
- (e) Is capable of operation within 10 seconds by a flight attendant at each of those stations in the passenger compartment from which its use is accessible;
- (f) Is audible at all passenger seats, lavatories, and flight attendant seats and work stations; and
- (g) For transport category airplanes manufactured on or after November 27, 1990, meets the requirements of §25.1423 of this chapter.

[Doc. No. 24995, 54 FR 43926, Oct. 27, 1989]

## § 121.319 Crewmember interphone system.

- (a) No person may operate an airplane with a seating capacity of more than 19 passengers unless the airplane is equipped with a crewmember interphone system that:
  - (1) [Reserved]
- (2) Is capable of operation independent of the public address system required by §121.318(a) except for handsets, headsets, microphones, selector switches, and signaling devices; and
- (3) Meets the requirements of paragraph (b) of this section.
- (b) The crewmember interphone system required by paragraph (a) of this section must be approved in accordance with §21.305 of this chapter and meet the following requirements:
- (1) It must provide a means of twoway communication between the pilot compartment and—
- (i) Each passenger compartment; and (ii) Each galley located on other than the main passenger deck level.
- (2) It must be accessible for immediate use from each of two flight crew-

member stations in the pilot compartment;

- (3) It must be accessible for use from at least one normal flight attendant station in each passenger compartment:
- (4) It must be capable of operation within 10 seconds by a flight attendant at those stations in each passenger compartment from which its use is accessible; and
- (5) For large turbojet-powered airplanes:
- (i) It must be accessible for use at enough flight attendant stations so that all floor-level emergency exits (or entryways to those exits in the case of exits located within galleys) in each passenger compartment are observable from one or more of those stations so equipped;
- (ii) It must have an alerting system incorporating aural or visual signals for use by flight crewmembers to alert flight attendants and for use by flight attendants to alert flight crewmembers:
- (iii) The alerting system required by paragraph (b)(5)(ii) of this section must have a means for the recipient of a call to determine whether it is a normal call or an emergency call; and
- (iv) When the airplane is on the ground, it must provide a means of two-way communication between ground personnel and either of at least two flight crewmembers in the pilot compartment. The interphone system station for use by ground personnel must be so located that personnel using the system may avoid visible detection from within the airplane.

[Doc. No. 10865, 38 FR 21494, Aug. 9, 1973, as amended by Amdt. 121–121, 40 FR 42186, Sept. 11, 1975; Amdt. 121–149, 43 FR 50602, Oct. 30, 1978; Amdt. 121–178, 47 FR 13316, Mar. 29, 1982; Amdt. 121–253, 61 FR 2611, Jan. 26, 1996]

#### §121.321 [Reserved]

# § 121.323 Instruments and equipment for operations at night.

No person may operate an airplane at night unless it is equipped with the following instruments and equipment in addition to those required by §§ 121.305 through 121.321:

- (a) Position lights.
- (b) An anti-collision light.

- (c) Two landing lights, except that only one landing light is required for nontransport category airplanes type certificated after December 31, 1964.
- (d) Instrument lights providing enough light to make each required instrument, switch, or similar instrument, easily readable and installed so that the direct rays are shielded from the flight crewmembers' eyes and that no objectionable reflections are visible to them. There must be a means of controlling the intensity of illumination unless it is shown that nondimming instrument lights are satisfactory.
- (e) An airspeed-indicating system with heated pitot tube or equivalent means for preventing malfunctioning due to icing.
  - (f) A sensitive altimeter.

[Doc. No. 6258, 29 FR 19205, Dec. 31, 1964, as amended by Amdt. 121–251, 60 FR 65932, Dec. 20, 1995]

# § 121.325 Instruments and equipment for operations under IFR or overthe-top.

No person may operate an airplane under IFR or over-the-top conditions unless it is equipped with the following instruments and equipment, in addition to those required by §§121.305 through 121.321:

- (a) An airspeed indicating system with heated pitot tube or equivalent means for preventing malfunctioning due to icing.
  - (b) A sensitive altimeter.
- (c) Instrument lights providing enough light to make each required instrument, switch, or similar instrument, easily readable and so installed that the direct rays are shielded from the flight crewmembers' eyes and that no objectionable reflections are visible to them, and a means of controlling the intensity of illumination unless it is shown that nondimming instrument lights are satisfactory.

### §121.327 Supplemental oxygen: Reciprocating engine powered airplanes.

(a) General. Except where supplemental oxygen is provided in accordance with §121.331, no person may operate an airplane unless supplemental oxygen is furnished and used as set forth in paragraphs (b) and (c) of this section. The amount of supplemental oxygen

- gen required for a particular operation is determined on the basis of flight altitudes and flight duration, consistent with the operation procedures established for each operation and route.
- (b) Crewmembers. (1) At cabin pressure altitudes above 10,000 feet up to and including 12,000 feet, oxygen must be provided for, and used by, each member of the flight crew on flight deck duty, and must be provided for other crewmembers, for that part of the flight at those altitudes that is of more than 30 minutes duration.
- (2) At cabin pressure altitudes above 12,000 feet, oxygen must be provided for, and used by, each member of the flight crew on flight deck duty, and must be provided for other crewmembers, during the entire flight time at those altitudes.
- (3) When a flight crewmember is required to use oxygen, he must use it continuously, except when necessary to remove the oxygen mask or other dispenser in connection with his regular duties. Standby crewmembers who are on call or are definitely going to have flight deck duty before completing the flight must be provided with an amount of supplemental oxygen equal to that provided for crewmembers on duty other than on flight deck duty. If a standby crewmember is not on call and will not be on flight deck duty during the remainder of the flight, he is considered to be a passenger for the purposes of supplemental oxygen requirements.
- (c) Passengers. Each certificate holder shall provide a supply of oxygen, approved for passenger safety, in accordance with the following:
- (1) For flights of more than 30 minutes duration at cabin pressure altitudes above 8,000 feet up to and including 14,000 feet, enough oxygen for 30 minutes for 10 percent of the passengers.
- (2) For flights at cabin pressure altitudes above 14,000 feet up to and including 15,000 feet, enough oxygen for that part of the flight at those altitudes for 30 percent of the passengers.
- (3) For flights at cabin pressure altitudes above 15,000 feet, enough oxygen for each passenger carried during the entire flight at those altitudes.